

REMARKS/ARGUMENTS

Consideration of the above-identified application in view of the present amendment is respectfully requested. By this amendment, claims 20-23 are added. Claims 1-23 are currently pending.

Claims 1 and 11 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,773,075 issued to Rouhana et al. ("Rouhana") in view of U.S. Patent No. 6,564,895 issued to Bohmler ("Bohmler"). Withdrawal of this rejection is respectfully requested for at least the following reasons.

The M.P.E.P. sets forth the criteria for a rejection for obviousness under 35 U.S.C. §103 as follows:

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure.

See, M.P.E.P. § 706.02(j) *citing In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Rouhana discloses a four-point seat belt system 10 for restraining a vehicle occupant in a vehicle seat. Two shoulder belts 14 and 16 (Fig. 2) mounted on separate spool members 52 and 54 are connected to a common retractor mechanism 50, which synchronizes web payout and retraction and also shares a load limiting function. The shoulder belts 14 and 16 are connected to a lap belt,

which is buckled centrally on the abdomen of the occupant. A load limiting system controls occupant motion and reduces force levels on the occupant's chest.

Bohmler discloses a belt retractor for a vehicle safety belt 3. The belt retractor comprises a belt spool 5, a locking member 17 which at least largely prevents a belt spool rotation in the case of restraint, and a force limiter 31. The force limiter opposes a defined force to a rotation of the belt spool on unwinding of the safety belt. A blocking mechanism is able to be moved by an adjusting element at least partially toward a blocking position. In the blocking position, the blocking mechanism deactivates the force limiter 31.

There is no suggestion or motivation in Rouhana or Bohmler or in the knowledge of one of ordinary skill in the art to combine the reference teachings of Rouhana and Bohmler as proposed in the rejection of claims 1 and 11. The Office Action merely states that "it would be obvious to one of ordinary skill in the art at the time of the invention to have load limited sensors of Bohmler on the safety belt system of Rouhana in order to improve response of the safety system". However, this reason is speculative. One of ordinary skill in the art will recognize that there is no need to modify Rouhana in the manner shown in Bohmler. Such a modification of Rouhana would involve extensive redesigning to accommodate the sensors 47 and control 45 of Bohmer and thus the obviousness rejection is not appropriate. In re Ratti, 270 F.2d 810, 123 USPQ 349 (C.C.P.A. 1959). For the reasons set forth above, the rejection of claims 1 and 11 under 35 U.S.C. 103(a) fails to establish a prima facie case for obviousness, because there is no suggestion or motivation in Rouhana or Bohmer or in the knowledge of one of ordinary skill in the art to combine

the reference teachings of Rouhana and Bohmer as proposed in the rejection of claims 1 and 11.

Furthermore, there is not a reasonable expectation of success of combining the teachings of Rouhana with Bohmler. In Bohmler, the control 45 is configured to respond to the sensors 47 to cause a switching striker 43 to displace a locking catch 19 to the left in the blocking position. In Rouhana, the examiner alleges that the load limiters are spools 52, 54. However, these spools 52, 54 by themselves do not function as load limiters. The load limiting in Rouhana is merely controlled through a single energy management system 80 in the form of a metal band 82 or torsion bar 90, which acts on both belts simultaneously (See Col. 5, lines 13-18 and Col. 6, lines 9-16). The load limiting of the energy management system 80 of Rouhana is used for shoulder belts in a four point seat belt system. The loads for shoulder belts in a four point seat belt system are different than that for other belts. Yet, Bohmler does not disclose the type of belt or seat belt system that the sensors and control 45 are used. Hence, there is no indication that the sensors and control 45 of Bohmler would work for the shoulder belts in Rouhana. Also, the mechanism 50 of Rouhana is positioned inside the back of the vehicle seat. There is limited room in that area, which may not be enough to accommodate the sensors and control 45 of Bohmler.

Further, as previously stated, the control 45 of Bohmler is design to cause a switching striker 43 to displace a locking catch 19. Yet, Rouhana neither discloses such a displaceable device that controls the load limiting of the energy management system 80 nor a load limiting configuration that is controlled by such a displaceable device. Rouhana merely discloses that the mechanism 50 includes a gimble locking mechanism 70 to compensate for any changes in the orientation of the back of the

vehicle seat 12 or vehicle. The gimble mechanism activates a lever 72, which in turn locks a sprocket 74 on one side of the common retractor device 56. Thus, there is no reasonable expectation that the sensors and control 45 of Bohmler would control the load limiting of the energy management system of Rouhana. Therefore, for the reasons set forth above, the rejection of claims 1 and 11 under 35 U.S.C. 103(a) fails to establish a prima facie case for obviousness, because there is not a reasonable expectation of success of combining the teachings of Rouhana with Bohmler.

It is respectfully suggested that the obviousness rejection to claims 1 and 11 using Rouhana and Bohmler only seems plausible using hindsight after having the benefit of the Applicants' disclosure. The use of the teachings of the present invention to find obviousness is impermissible.

The court must be ever alert not to read obviousness into an invention on the basis of applicant's own statements; that is, we must view the prior art without reading into that art applicant's teachings. The issue, then, is whether the teachings of the prior art would, in and of themselves and without the benefits of appellant's disclosure, make the invention as a whole obvious.

In Re Spinnoble, 160 USPQ 237 at 243 (CCPA 1969) (emphasis in original).

Accordingly, the Examiner must consider only the teachings of the prior art references. Without the teachings of the present invention, one of ordinary skill in the art would not even consider combining the teachings of Rouhana and Bohmler as suggested in the Office Action.

Further, the proposed combination of Rouhana with Bohmler does not teach or suggest all of the claim limitations for each of claims 1 and 11. The proposed combination of Rouhana and Bohmler does not teach or suggest the feature in each of claims 1 and 11 of first and second load limiters associated with the first and

second seat belts, respectively. In Rouhana, the examiner alleges that the load limiters are spools 52, 54. However, these spools 52, 54 by themselves do not function as load limiters. The load limiting in Rouhana is merely controlled through a single energy management system 80 in the form of a metal band 82 or torsion bar 90, which acts on both belts simultaneously (See Col. 5, lines 13-18 and Col. 6, lines 9-16). Thus, Rouhana does not have first and second load limiters associated with the first and second seat belts, respectively. In fact, Rouhana teaches away from having first and second load limiters associated with the first and second seat belts, respectively. It is improper to combine references where the references teach away from their combination. In re Grasselli, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983). In particular, Rouhana discloses at column 4, lines 40-48 that:

“One known system today mounts the shoulder belt strap members on separate retractors. This has the disadvantage of additional components, which add weight and cost. In the present invention many duplicate parts are eliminated and the load limiting is provided from a central source, namely the common retractor mechanism 56. Thus, the occupant receives more optimized load limits for all impact directions, even if shoulder belts are asymmetrically loaded.” {

Thus, to modify Rouhana to have first and second load limiters associated with the first and second seat belts, respectively would be contrary to this objective of Rouhana. Bohmler also does not teach or suggest first and second load limiters associated with the first and second seat belts, respectively. Therefore, for the reasons set forth above, the rejection of claims 1 and 11 under 35 U.S.C. 103(a) fails to establish a prima facie case for obviousness, because the proposed combination

of Rouhana with Bohmler does not teach or suggest all of the claim limitations for each of claims 1 and 11 as proposed in the rejection of claims 1 or 11.

Claims 1 and 11 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Rouhana in view of U.S. Patent No. 6,829,952 issued to Stanley et al.

("Stanley"). Withdrawal of this rejection is respectfully requested for at least the following reasons. Stanley discloses a seat belt tension sensor 10 operatively coupled to a webbing of a seat belt 14, for measuring a tensile load. The seat belt tension sensor 10 and a crash sensor 50 are operatively coupled to a controller 52 that is adapted to control the actuation of a restraint actuator 54 e.g., an air bag inflator 54"--of a safety restraint system 56 located so as to protect an occupant at the particular seating location. If the tensile load sensed by the seat belt tension sensor 10 is greater than a threshold, then the restraint actuator 54 is disabled by the controller 52 regardless of whether or not a crash is detected by the crash sensor 50. If the tensile load sensed by the seat belt tension sensor 10 is less than a threshold, then the restraint actuator 54 is enabled by the controller 52 so that the restraint actuator 54 can be actuated responsive to a crash detected by the crash sensor 50. Rouhana is discussed above.

There is no suggestion or motivation in Rouhana or Stanley or in the knowledge of one of ordinary skill in the art to combine the reference teachings of Rouhana and Stanley as proposed in the rejection of claims 1 and 11. The Office Action merely states that "it would be obvious to one of ordinary skill in the art at the time of the invention to have load limited sensors of Stanley et al. on the safety belt system of Rouhana in order to improve response of the safety system". However, this reason is speculative. One of ordinary skill in the art will recognize that there is

no need to modify Rouhana in the manner shown in Stanley. Such a modification of Rouhana would involve extensive redesigning to accommodate the sensors 50, 60, 106 and controller 52 of Stanley. For the reasons set forth above, the rejection of claims 1 and 11 under 35 U.S.C. 103(a) fails to establish a prima facie case for obviousness, because there is no suggestion or motivation in Rouhana or Stanley or in the knowledge of one of ordinary skill in the art to combine the reference teachings of Rouhana and Stanley as proposed in the rejection of claims 1 and 11.

Furthermore, there is not a reasonable expectation of success of combining the teachings of Rouhana with Stanley. In Stanley, the controller 52 is configured to respond to the sensors to control the actuation of a restraint actuator 54 e.g., an air bag inflator 54"--of a safety restraint system 56 (Col. 3, lines 1-5). The controller 52 is not configured to control any load limiters. In fact, Stanley fails to disclose any load limiters associated with the seat belt 14. In Rouhana, the examiner alleges that the load limiters are spools 52, 54. However, these spools 52, 54 by themselves do not function as load limiters. The load limiting in Rouhana is merely controlled through a single energy management system 80 in the form of a metal band 82 or torsion bar 90, which acts on both belts simultaneously (See Col. 5, lines 13-18 and Col. 6, lines 9-16). The load limiting of the energy management system 80 of Rouhana would not be affected at all using the sensors and controller 52 of Stanley.

Therefore, for the reasons set forth above, the rejection of claims 1 and 11 under 35 U.S.C. 103(a) fails to establish a prima facie case for obviousness, because there is not a reasonable expectation of success of combining the teachings of Rouhana with Stanley. It is respectfully suggested that the obviousness rejection to claims 1 and 11 using Rouhana and Stanley only seems plausible using

hindsight after having the benefit of the Applicants' disclosure, which is impermissible.

Further, the proposed combination of Rouhana with Stanley does not teach or suggest all of the claim limitations for each of claims 1 and 11. The proposed combination of Rouhana and Stanley does not teach or suggest the feature in each of claims 1 and 11 of first and second load limiters associated with the first and second seat belts, respectively. In Rouhana, the examiner alleges that the load limiters are spools 52, 54. However, these spools 52, 54 by themselves do not function as load limiters. The load limiting in Rouhana is merely controlled through a single energy management system 80 in the form of a metal band 82 or torsion bar 90, which acts on both belts simultaneously (See Col. 5, lines 13-18 and Col. 6, lines 9-16). Thus, Rouhana does not have first and second load limiters associated with the first and second seat belts, respectively. In fact, Rouhana teaches away from having first and second load limiters associated with the first and second seat belts, respectively. In particular, Rouhana discloses at column 4, lines 40-48 that:

"One known system today mounts the shoulder belt strap members on separate retractors. This has the disadvantage of additional components, which add weight and cost. In the present invention many duplicate parts are eliminated and the load limiting is provided from a central source, namely the common retractor mechanism 56. Thus, the occupant receives more optimized load limits for all impact directions, even if shoulder belts are asymmetrically loaded."

Thus, to modify Rouhana to have first and second load limiters associated with the first and second seat belts, respectively would be contrary to this objective of Rouhana. Stanley also does not teach or suggest first and second load limiters

associated with the first and second seat belts, respectively. In fact, Stanley fails to disclose any load limiters associated with the seat belt 14. Therefore, for the reasons set forth above, the rejection of claims 1 and 11 under 35 U.S.C. 103(a) fails to establish a prima facie case for obviousness, because the proposed combination of Rouhana with Bohmler does not teach or suggest all of the claim limitations for each of claims 1 and 11 as proposed in the rejection of claims 1 and 11. Therefore, in view of the above-mentioned reasons, claims 1 and 11 are allowable.

Claims 2 and 4-10 depend directly or indirectly from claim 1 and are therefore allowable as depending from an allowable claim and for the specific features recited therein. Claims 12-19 depend directly or indirectly from claim 1 and are therefore allowable as depending from an allowable claim and for the specific features recited therein.

Claim 3, which depends on claim 1, should be allowed for the same reasons as claim 1 and also for the additional feature that the first seat belt is a first shoulder belt and the first load limiter forms a part of a first shoulder belt retractor and wherein the second seat belt is a second shoulder belt and the second load limiter forms a part of a second shoulder belt retractor. Neither Rouhana nor Bohmler nor Stanley taken alone or in combination disclose or suggest this feature. In fact, Rouhana teaches away from having a first load limiter form a part of a first shoulder belt retractor and a second load limiter form a part of a second shoulder belt retractor. In particular, Rouhana discloses at column 4, lines 40-48 that:

"One known system today mounts the shoulder belt strap members on separate retractors. This has the disadvantage of additional components, which add weight and cost. In the present invention many duplicate parts are eliminated and the load limiting is provided from

a central source, namely the common retractor mechanism 56. Thus, the occupant receives more optimized load limits for all impact directions, even if shoulder belts are asymmetrically loaded."

Thus, to modify Rouhana to have a first load limiter form a part of a first shoulder belt retractor and a second load limiter form a part of a second shoulder belt retractor would be contrary to this objective of Rouhana. Bohmler and Stanley also do not teach or suggest a first load limiter forming a part of a first shoulder belt retractor and a second load limiter forming a part of a second shoulder belt.

Therefore, in view of the above-mentioned reasons, claim 3 is allowable.

New claim 20, which depends on claim 11, should be allowed for the same reasons as claim 11 and also for the additional feature of controlling the first and second load limiters independent of each other. None of the cited references disclose or suggest this feature. In fact, Rouhana teaches away from controlling first and second load limiters independent of each other. In particular, Rouhana discloses at column 1, lines 52-58 that:

"The mechanism includes separate spools for the shoulder belts connected to a common retractor mechanism. The mechanism is preferably located in the rear of the vehicle seat and enables the shoulder belts to act in unison during normal use and share common load limits for optimum and symmetric payout during crash events."

Thus, to modify Rouhana to control first and second load limiters independent of each other would be contrary to this objective of Rouhana. Therefore, in view of the above-mentioned reasons, claim 20 is allowable.

New claim 21, which depends from claim 11, should be allowed for the same reasons as claim 11 and also for the additional feature of controlling the first and second load limiters in response to the sensed characteristic such that the first load limiter provides a first level of load limiting and the second load limiter provides a second level of load limiting that is different from the first level of load limiting. None of the cited references disclose or suggest this feature. In fact, Rouhana teaches away from this feature. In particular, Rouhana discloses at column 1, lines 52-58 that:

“The mechanism includes separate spools for the shoulder belts connected to a common retractor mechanism. The mechanism is preferably located in the rear of the vehicle seat and enables the shoulder belts to act in unison during normal use and share common load limits for optimum and symmetric payout during crash events.”

Thus, to modify Rouhana to control first and second load limiters in response to a sensed characteristic such that the first load limiter provides a first level of load limiting and the second load limiter provides a second level of load limiting that is different from the first level of load limiting would be contrary to this objective of Rouhana. Therefore, in view of the above-mentioned reasons, claim 21 is allowable.

New claim 22, which depends from claim 1, should be allowed for the same reasons as claim 1 and also for the additional feature that the first and second load limiters operate independently of each other. None of the cited references disclose or suggest this feature. In fact, Rouhana teaches away from having first and second load limiters operated independently of each other. In particular, Rouhana discloses at column 1, lines 52-58 that:

"The mechanism includes separate spools for the shoulder belts connected to a common retractor mechanism. The mechanism is preferably located in the rear of the vehicle seat and enables the shoulder belts to act in unison during normal use and share common load limits for optimum and symmetric payout during crash events."

Thus, to modify Rouhana to have first and second load limiters operated independently of each other would be contrary to this objective of Rouhana. Therefore, in view of the above-mentioned reasons, claim 22 is allowable.

New claim 23, which depends from claim 1, should be allowed for the same reasons as claim 1 and also for the additional feature that the controller is responsive to the at least one sensor for controlling first and second load limiters such that the first load limiter provides a first level of load limiting and the second load limiter provides a second level of load limiting that is different from the first level of load limiting. None of the cited references disclose or suggest this feature. In fact, Rouhana teaches away from this feature. In particular, Rouhana discloses at column 1, lines 52-58 that:

"The mechanism includes separate spools for the shoulder belts connected to a common retractor mechanism. The mechanism is preferably located in the rear of the vehicle seat and enables the shoulder belts to act in unison during normal use and share common load limits for optimum and symmetric payout during crash events."

Thus, to modify Rouhana to have first and second load limiters be controlled such that the first load limiter provides a first level of load limiting and the second load limiter provides a second level of load limiting that is different from the first level

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of load limiting would be contrary to this objective of Rouhana. Therefore, in view of the above-mentioned reasons, claim 23 is allowable.

In view of the foregoing, it is respectfully requested that the amendment be entered and the application allowed.

Please charge any deficiency or credit any overpayment in the fees for this amendment to our Deposit Account No. 20-0090.

Respectfully submitted,


James L. Tarolli
Reg. No. 36,029

TAROLLI, SUNDHEIM, COVELL,
& TUMMINO L.L.P.
1300 East Ninth Street, Suite 1700
Cleveland, Ohio 44114
Phone: (216) 621-2234
Fax: (216) 621-4072
Customer No.: 26,294